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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/771,692	02/04/2004	Edward Hosung Park	03-0052	3947

  

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FREUDENBERG-NOK GENERAL PARTNERSHIP LEGAL DEPARTMENT 47690 EAST ANCHOR COURT PLYMOUTH, MI 48170-2455		

  

EXAMINER	
PICKARD, ALISON K	

  

ART UNIT	PAPER NUMBER
3673	

  

NOTIFICATION DATE	DELIVERY MODE
08/10/2007	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

cyr@fngp.com  
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## Office Action Summary

Application No.

10/771,692

Applicant(s)

PARK ET AL.

Examiner

Alison K. Pickard

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3, 7-15, 18-24 and 26-32 is/are pending in the application.
- 4a) Of the above claim(s) 13, 14, 21, 22 and 24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 7-12, 15, 18-20, 23 and 26-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 7-12, 15, 18-20, 26-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pataille in view of WO 01/98405 (WO '405) in view of Chmielewski (2002/0198320).

Pataille discloses a seal assembly comprising a ring radially extending to slidably engage a shaft. The seal has a length greater than the thickness and has a flat bearing surface in that segment 3 is flat with a spiral groove. Pataille does not appear to disclose the material having the claimed properties. WO '405 teaches an improved sealing material that exhibits desirable properties for a wide range of environments (e.g. see second paragraph on page 1). WO '405 teaches the material has the claimed Shore A hardness, tensile strength, modulus, and elongation at break (see table on page 12, has values that fall in claimed ranges). The material is a non-continuous phase vulcanized fluorocarbon elastomer dispersed in a continuous phase matrix comprising a thermoplastic material (see abstract). Regarding claims 1-3, 7-12, 15, 18-20, 26, and 27, since WO '405 discloses a material having the required materials and properties, it is submitted the material would also have the claimed tan-delta and loss to storage ratio.

Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the seal of Pataille with the material taught by WO '405 to

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improve the seals performance and use. WO '405 discloses that the continuous phase thermoplastic contains fluorine. Chmielewski teaches a composition comprising a discrete phase vulcanized fluorocarbon elastomer and a continuous phase thermoplastic. Chmielewski teaches non-fluorinated thermoplastics that can be used as an alternative to fluorine thermoplastics (see paragraph 19). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to select non-fluorine containing options as the thermoplastic material to achieve equivalent results. Claims 31 and 32 are process limitations in product claims and are given little patentable weight.

3. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pataille in view of WO '405 in view of Chmielewski as applied to claim 18 above, and further in view of Johnston.

Johnston teaches art equivalent shapes including a smooth outer surface or bead. It would have been obvious for one of ordinary skill in the art at the time the invention was made to make the seal with a bead as such is an art equivalent.

#### ***Response to Arguments***

4. Applicant's arguments filed 5-21-07 have been fully considered but they are not persuasive.

First, The selection of a known material based on its suitability for its intended use is not considered inventive. See *In re Leshin*, 125 USPQ 416 (CCPA 1960). Applicant has not shown any criticality in using a non-fluorine containing polymeric material as the continuous phase thermoplastic. Further, Applicant's specification (paragraph 52 and 59) even discloses that fluorine-containing materials may be used. Chmielewski teaches alternatives to fluorine

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containing materials in such compositions. Claims 31 and 32 are process limitations in product claims and are given little patentable weight.

*Conclusion*

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alison K. Pickard whose telephone number is 571-272-7062. The examiner can normally be reached on M-F (10-7:30), with alternate Friday's off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tricia Engle can be reached on 571-272-6660. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Alison K. Pickard  
Primary Examiner  
Art Unit 3673

AP